

IN THE CLAIMS

Please amend Claims 1 – 3, and add new Claims 4 – 44 as follows:

- 5 1. (Currently amended) In a full-duplex communications system having at least one border node, a method for determining a path to a senior border node during the Self-ID process comprising the acts of:
- marking the border node as the senior border node;
- determining whether said border node has received a Self-ID packet that does not contain
- 10 a Speed Code on a parent beta port of said border node;
- marking said parent beta port on said border node as the path to the senior border node if said border node has received a Self-ID packet that does not contain a Speed Code on [[a]] said parent beta port of said border node; and
- canceling said border node's own status as [[a]] the senior border node.
- 15 2. (Currently amended) A computer-readable medium containing instructions which, when executed by a computer, determine a path to a senior border node during a Self-ID process in a full-duplex communications system having at least one border node, by performing the acts of:
- marking the border node as the senior border node;
- 20 determining whether said border node has received a Self-ID packet that does not contain a Speed Code on a parent beta port of said border node;
- marking said parent beta port on said border node as the path to the senior border node if said border node has received a Self-ID packet that does not contain a Speed Code on [[a]] said parent beta port of said border node; and
- 25 canceling said border node's own status as [[a]] the senior border node.
3. (Currently amended) A device containing instructions which, when executed by the device, determine a path to a senior border node during a Self-ID process in a full-duplex communications system having at least one border node, by performing the acts of:
- marking the border node as the senior border node;
- 30 determining whether said border node has received a Self-ID packet that does not contain a Speed Code on a parent beta port of said border node;

marking said parent beta port on said border node as the path to the senior border node if said border node has received a Self-ID packet that does not contain a Speed Code on [[a]] said parent beta port of said border node; and

canceling said border node's own status as [[a]] the senior border node.

5 4. (New) The method of Claim 1, wherein said act of marking the border node as the senior border node occurs any time after a bus reset.

5. (New) The method of Claim 1, wherein said act of determining further comprises storing all received Self-ID packets in a queue, and detecting the absence of said Speed Code on all received Self-ID packets substantially at once.

10 6. (New) The method of Claim 1, wherein said act of determining further comprises detecting the absence of said Speed Code on each Self-ID packet as it is received at said parent beta port.

15 7. (New) The method of Claim 1, wherein said act of marking said parent beta port on said border node as the path to the senior border node further comprises setting a designated bit within logic in a PHY of said border node.

8. (New) The method of Claim 1, wherein said act of marking said parent beta port on said border node as the path to the senior border node further comprises storing in a variable either the: (i) location of said senior border node, or (ii) path to said senior border node.

20 9. (New) The computer-readable medium of Claim 2, wherein said act of marking the border node as the senior border node may occur any time after a bus reset.

10. (New) The computer-readable medium of Claim 2, wherein said act of determining further comprises storing all received Self-ID packets in a queue, and detecting the absence of said Speed Code on all received Self-ID packets substantially at once.

25 11. (New) The computer-readable medium of Claim 2, wherein said act of determining further comprises detecting the absence of said Speed Code on each Self-ID packet substantially as it is received at said parent beta port.

12. (New) The computer-readable medium of Claim 2, wherein said act of marking said parent beta port on said border node as the path to the senior border node further comprises setting a designated bit within logic in a PHY of said border node.

30 13. (New) The computer-readable medium of Claim 2, wherein said act of marking said parent beta port on said border node as the path to the senior border node further comprises

storing in a variable either the: (i) location of said senior border node; or (ii) path to said senior border node.

14. (New) The device of Claim 3, wherein said act of marking the border node as the senior border node will occur any time after a bus reset.

5 15. (New) The device of Claim 3, wherein said act of determining further comprises storing all received Self-ID packets in a queue and detecting the absence of said Speed Code on all received Self-ID packets substantially at once.

10 16. (New) The device of Claim 3, wherein said act of determining further comprises detecting the absence of said Speed Code on each Self-ID packet substantially as it is received at said parent beta port.

17. (New) The device of Claim 3, wherein said act of marking said parent beta port on said border node as the path to the senior border node further comprises setting a designated bit within logic in a PHY of said border node.

15 18. (New) The device of Claim 3, wherein said act of marking said parent beta port on said border node as the path to the senior border node further comprises storing in a variable either the: (i) location of said senior border node; or (ii) path to said senior border node.

19. (New) In a serial bus communications system having at least one border node, a method for determining a path to a senior border node during a self-identification process comprising:

20 marking the border node as a senior border node;

determining whether said border node has received packet comprising identification information and that does not comprise a speed designation on a parent port of said border node;

25 marking said parent port on said border node as the path to the senior border node if said border node has received said packet that does not comprise a speed designation on said parent port of said border node; and

canceling said border node's own status as a senior border node.

30 20. (New) A computer-readable device having a medium containing instructions which, when executed by a computer, determine a path to a senior border node during a self-identification process in a serial bus communications system having at least one border node, by performing the acts of:

marking the border node as a senior border node;

determining whether said border node has received a packet comprising identification information and that does not comprise a speed designation on a parent port of said border node;

marking said parent port on said border node as the path to the senior border node if said border node has received said packet on said parent port of said border node; and

5 canceling said border node's own status as a senior border node.

21. (New) A computer-readable device having a medium comprising instructions which, when executed by the device, determine a path to a senior border node during a self-identification process in a serial bus communications system having at least one border node, by performing the acts of:

10 marking the border node as a senior border node;

determining whether said border node has received an identification packet that does not contain a speed designation on a parent port of said border node;

marking said parent port on said border node as the path to the senior border node if said border node has received an identification packet that does not contain a speed designation on
15 said parent port of said border node; and

designating said border node as a node other than a senior border node.

22. (New) In a serial bus communications system having at least one senior border node, a method for determining a path to a senior border node by a device comprising:

determining whether said device has received a packet comprising identification
20 information that also does not comprise a speed designation, on any one of a plurality of ports of said device;

marking a port of said plurality as the path to the senior border node if said port is the last port to have received an identification packet that does not contain a speed designation; and

canceling the marking status of any other ports of said plurality of ports, if any other
25 ports of said plurality of ports are marked as a path to said senior border node.

23. (New) The method of Claim 22, wherein said device comprises a device compliant with the IEEE 1394b standard.

24. (New) The method of Claim 23, wherein said act of determining further comprises detecting the absence of said speed designation on each packet comprising
30 identification information as it is received at its respective port of said plurality.

25. (New) The method of Claim 24, wherein said act of marking said port on said device as the path to a senior border node further comprises setting a designated bit within logic in a PHY of said device.

26. (New) The method of Claim 24, wherein said act of marking said port on said device as the path to a senior border node further comprises storing in a variable either the: (i) location of said senior border node; or (ii) path to said senior border node.

27. (New) A computer-readable device having a medium containing instructions which, when executed by a computing device, determine a path to a senior border node by performing the method comprising:

determining whether said computing device has received a packet with identification information and that does not contain a data rate designation on any one of a plurality of ports of said computing device;

marking a port of said plurality as the path to a senior border node if said port is the last port to have received such packet; and

canceling the marking status of any other ports of said plurality of ports, if any other ports of said plurality of ports are marked as a path to said senior border node.

28. (New) The computer-readable device of Claim 27, wherein said computing device comprises a computing device capable of operating according to the IEEE 1394b standard.

29. (New) The computer-readable device of Claim 27, wherein said act of determining further comprises detecting the absence of said data rate designation on each packet with identification packet as it is received at its respective port of said plurality.

30. (New) The computer-readable device of Claim 27, wherein said act of marking said port on said computing device as the path to a senior border node further comprises setting at least one designated bit within logic in a PHY of said computing device.

31. (New) The computer-readable device of Claim 27, wherein said act of marking said port on said computing device as the path to a senior border node further comprises storing in a variable either the: (i) location of said senior border node; or (ii) path to said senior border node.

32. (New) A storage device containing instructions which, when executed by the device, determine a path to a senior border node by performing the method comprising:

determining whether said device has received a self-identification packet that does not contain a speed designation on any one of a plurality of ports of said device;

marking a port of said plurality as the path to the senior border node if said port is the last port to have received a self-identification packet that does not contain a speed designation; and

5 canceling the marking status of any other ports of said plurality of ports, if any other ports of said plurality of ports mark themselves as a path to said senior border node.

33. (New) The storage device of Claim 32, wherein said device comprises a computing device capable of operating according to the IEEE 1394b standard.

10 34. (New) The storage device of Claim 32, wherein said act of determining further comprises detecting the absence of said speed designation on each self-identification packet as it is received at its respective port of said plurality.

35. (New) The storage device of Claim 32, wherein said act of marking said port on said device as the path to the senior border node further comprises setting at least one bit within logic in a PHY of said device.

15 36. (New) The storage device of Claim 32, wherein said act of marking said port on said device as the path to the senior border node further comprises storing in a variable either the: (i) location of said senior border node; or (ii) path to said senior border node.

20 37. (New) In a communications system utilizing at least one of an asynchronous or isochronous serialized bus protocol, and having at least one border node, a method for determining a path to a senior border node during a self-identification process comprising:

designating the border node as a senior border node, said designation as senior border node causing said border node to operate within said network different than if said border node was not designated as a senior node;

25 determining whether said border node has received on a parent port thereof a self-identification packet that does not comprise speed or data rate information;

designating said parent port on said border node as the path to the senior border node if said border node has received a self-identification packet that does not comprise speed or data rate information on said parent port of said border node; and

30 changing said border node's own status from a status a senior border node to another status substantially in response to said act of designating said parent port.

38. (New) The method of Claim 37, wherein said at least one asynchronous or isochronous serialized bus protocols comprises at least one of the IEEE 1394b or IEEE 1394a protocols.

39. (New) The method of Claim 38, wherein said communication system comprises a hybrid bus utilizing both of said IEEE 1394b or IEEE 1394a serialized bus protocols.

40. (New) In a full-duplex communications system comprising a plurality of nodes within a cloud compliant with the P1394b standard, a method for identifying a senior border node comprising the acts of:

determining whether one of said plurality of nodes was the last node within the cloud to transmit a Self-ID packet; and

marking said node as the senior border node if said one node was the last node within the cloud to transmit a Self-ID packet.

41. (New) In a full-duplex communications system comprising a plurality of nodes within a network cluster operating according to a serialized bus protocol, a method for identifying a senior border node comprising:

determining whether one of said plurality of nodes was the last node within the cluster to transmit a packet comprising identification information identifying said one node; and

designating said one node as the senior border node if said one node was the last node within the cluster to transmit said packet.

42. (New) The method of Claim 41, wherein said cluster comprises a plurality of devices operating according a protocol using a single request type for both asynchronous and isochronous arbitration.

43. (New) The method of Claim 41, wherein if said one of said plurality of nodes was not the last node within the cluster to transmit a packet comprising identification information:

evaluating a second of said plurality of nodes to determine if said second node was the last node within the cluster to transmit a packet comprising identification information identifying said second node; and

designating said second node as the senior border node if said second node was the last node within the cluster to transmit said packet.

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44. (New) The method of Claim 41, wherein said senior border comprises a node on the border between first and second system portions operating according to first and second serialized protocols, respectively.